

Abstract of the Invention

A system and method for detecting vibration information by receiving electromagnetic radiation reflected or emitted from a target object at a photodetector array to provide real-time imaging of the target object. The detected radiation may be visible light, infrared or ultraviolet radiation, and/or of other desired frequency ranges. The detected radiation is AC-coupled to isolate components relating to oscillations of the target object from components relating to ambient radiation, e.g. background sunlight, and is digitized, stored, and subjected to processing such as a Fourier transform to generate outputs representative of frequencies of oscillation, which can be used for analysis of the target object.